STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0016

JOHN ELIAS BALDACCI
GOVERNOR

DAVID A. COLE
COMMISSIONER

October 5, 2004
Subject: Guilford & Sangerville
Project No. BH-1009(100)X
PIN 10091.00
Bid Amendment No. 1

Dear Sir/Ms.:

Please make the following changes to your bid documents:

Delete both copies of "Special Provision Section 107 Prosecution of Work and Supplemental Liquidated Damages" dated September 7, 2004, and replace with the attached two pages entitled "Special Provision Section 107 Prosecution of Work and Supplemental Liquidated Damages **Bridge Completion Date**" and "Special Provision Section 107 Prosecution of Work and Supplemental Liquidated Damages **Contract Completion Date**" both dated 10-4-04.

Delete "Special Provision Section 107 Time (Supplemental Liquidated Damages for fabrication Time)" dated June 24, 2004, one page; and replace with the attached "Special provision Section 107 Time (Supplemental Liquidated Damages for Fabrication Time)" dated 10-4-04, one page.

Add the attached one page entitled "Special Provision Section 106 Quality (Quality Level Analysis-Structural Concrete)" dated 10-4-04.

Add the attached five pages entitled "Special Provision Section 502 Structural Concrete (Quality Level Analysis)" dated 10-4-04.

The Department has received the following Requests for Information:

Q) The new lines appear to go over the corner of the cofferdam for Abutment 1 on the NE corner. We need 10' of work area.

R) The power line will not be energized initially; therefore the work area can be directly adjacent to the power line.

Q) Are the lines on the west side to be removed?

R) Yes. Plans show poles #3 and #4 being removed when pile driving switches to the East side.

Q) Where are the Verizon lines?

R) Verizon only has lines outside of the approaches

Q) If we install cofferdams on the east side of abutment #1 and #2, then switch power from west lines to east line and complete the cofferdam and concrete work, then we need to remove the cofferdam under the east power lines, how is this to be done? New pole #4 needs to be out farther.

R) The contractor will have to plan work with the utilities accordingly. This may involve leaving / cutting-off selected sheets. Payment for leaving / cutting off selected piles shall be incidental to Item 511.07 Cofferdams - Abutment No. 1 & 2.

Q) Item 502.56 Concrete Fill, Does MDOT envision this concrete placed in the dry or a seal placement?

R) *Item 502.56 Concrete Fill and all related references to this item in relation to Abutment #2 Concrete Sub-Footing is hereby deleted and replaced with Item 502.229 Structural Concrete, Abutments and Retaining Walls (placed under water) (900 M3), Pay Unit 1LS. Structural Concrete, Abutments and Retaining Walls (placed under water) shall be Class S.*

Q) At Abut #2 the concrete sub-footing is bid as "Concrete Fill". Due to the depth and granular material over the ledge we are concerned that dewatering such a large coffer may be impossible. Will an underwater placement of 3 - 5 feet be allowable to create a seal or does this have to be placed in the dry?

R) See Response to #5.

Consider these changes prior to submitting your bid on October 6, 2004.

Sincerely,

FOR

Scott Bickford
Contracts & Specifications Engineer

Guilford - Sangerville
10091.00
10-4-04

SPECIAL PROVISION
SECTION 107
PROSECUTION OF WORK
and
SUPPLEMENTAL LIQUIDATED DAMAGES

BRIDGE COMPLETION DATE

The Contractor shall plan and conduct his operations in such a manner that the **bridge will be complete** and open to traffic by September 2, 2005. Supplemental liquidated damages will be assessed the contractor at the rate of one thousand five hundred dollars ($1500.00) per day for each day that the bridge remains incomplete beyond the above mentioned time.

This assessment of liquid damages will be in addition to the liquidated damages specified in section 107 of the Department of Transportation Standard Specification.

Guilford- Sangerville
10091.00
10-4-04

SPECIAL PROVISION
SECTION 107
PROSECUTION OF WORK
and
SUPPLEMENTAL LIQUIDATED DAMAGES

CONTRACT COMPLETION DATE

The specified **contract completion date** is September 30, 2005. Supplemental liquidated damages will be assessed the contractor at the rate of one thousand five hundred dollars ($1500.00) per day for each day the project remains incomplete beyond the above mentioned date.

This assessment of liquidated damages will be in addition to the liquidated damages specified in Section 107 of the Supplemental Specifications and Supplemental Standard Details for Construction.

SPECIAL PROVISION
SECTION 107
TIME
(Supplemental Liquidated Damages for Fabrication Time)

107.8.1 Fabrication Time.

The Department has budgeted for the following amounts of continuous fabrication/shop inspection for certain Work components:

Element	Time	Supplemental LD
1) Structural Steel	28 calendar days	$500 per calendar day
2) Precast Deck Panels	14 calendar days	$500 per calendar day

The Contractor is responsible for requiring their fabricators and suppliers to produce these products for the Work continuously until finished, including any needed actions to correct unacceptable workmanship or materials. If the Department determines that shop inspection beyond these times is required, then the corresponding Supplemental Liquidated Damages will be deducted as they occur from amounts otherwise due the Contractor. The Contractor will be notified by the Department when these times begin and when the allotted time will expire.

If a fabricator or supplier works more than one shift per day and the Department determines that inspection is required for each shift, each shift will count as a calendar day and the LD rate will be the noted amount per shift per calendar day in lieu of per calendar day.

Inspection is required for the following activities:
For metal fabrication work - welding, including tack welding, heat correcting, non-destructive examination, assembly verification, protective coating application.

For concrete work – tensioning of strands, batching and casting of concrete, breaking of test cylinders, de-tensioning.

Guilford-Sangerville
PIN 10091.00
10-4-04

SPECIAL PROVISION
SECTION 106
QUALITY
(Quality Level Analysis- Structural Concrete)

The first formula under Item H under Subsection 106.7.1, Standard Deviation Method, of the 2002 Revision of the Standard Specifications is deleted and replaced with the following. This formula shall apply to structural concrete, only:

Method A: PF = [32.5 + (Quality Level * 0.75)] * 0.01

Guilford
PIN 10091.00
10-4-04

SPECIAL PROVISION
SECTION 502
STRUCTURAL CONCRETE
(Quality Level Analysis)

The second sentence of 502.01, Description, of the 2002 Revision of the Standard Specifications is deleted and replaced by the following:

For METHOD A Statistical Acceptance, or METHOD B Statistical Acceptance, the work shall conform to the Contractor's approved Quality Control (QC) Plan and Quality Assurance (QA) provisions, in accordance with these Specifications and the requirements of Section 106 - Quality.

TABLE 1, under Subsection 502.05, Composition and Proportioning, of the 2002 Revision of the Standard Specifications is deleted and replaced by the following:

TABLE 1- Methods A and B

Concrete CLASS	Compressive Strength (PSI)		Permeability (COULOMBS)		Entrained Air (%)		Notes
	LSL	USL	LSL	USL	LSL	USL	
S	2,900	N/A	N/A	N/A	6.0	8.5	1, 5
A	4,350	-----	-----	2,400	6.0	8.5	1,2,5,6
P	-----	-----	-----	-----	4	6	1,2,3,4,5
LP	5,075	-----	-----	2,000	6.0	8.5	1,2,5,6
Fill	2,900	N/A	N/A	N/A	N/A	N/A	6

Subsection 502.0503, Quality Assurance METHOD B, of the 2002 Revision of the Standard Specifications is deleted and replaced by the following:

502.0503 Quality Assurance METHOD B The Department will determine the acceptability of the concrete through a quality assurance program.

The Department will take Quality Assurance samples a minimum of once per sublot on a statistically random basis. Quality Assurance tests will include compressive strength, air content and permeability.

Concrete sampling for quality assurance tests will be taken at the discharge point, with pumped concrete sampling taken at the discharge end of the pump line.

Lot Size A lot size shall consist of the total quantity represented by each class of concrete in the Contract, except in the case when the same class of concrete is paid for under both lump sum items and unit price items in the Contract; in this case, the lump sum item quantities shall comprise 1 lot and the unit price item quantities shall comprise a separate lot. A lot shall consist of a minimum of 3 and a maximum of 10 sublots. If a lot is comprised of more than 10 sublots, sized in accordance with Table #3, then this quantity shall be divided equally into 2, or more, lots such that there is a minimum of 3 and a maximum of 10 sublots per lot. If there is insufficient quantity in a lot to meet the recommended minimum sublot size, then the lot shall be divided into 3 equal sublots.

Sublot Size, General The size of each sublot shall be determined in accordance with Table #3. The Resident may vary sublot sizes based on placement sizes and sequence.

Sublot Size, Unit Price Items Sublot sizes will initially be determined from estimated quantities. When the actual final quantity of concrete is determined: If there is less than one-half the estimated sublot quantity in the remaining quantity, then this quantity shall be combined with the previous sublot, and no further Acceptance testing will be performed; if there is more than one-half the estimated sublot quantity in the remaining quantity, then this quantity shall constitute the last sublot and shall be represented by Acceptance test results. If it becomes apparent part way through a lot that, due to an underrun in quantity, there will be an insufficient quantity of concrete to comprise three sublots, then the Resident may adjust the sizes of the remaining sublots and select new sample locations based on the revised estimated quantity of concrete remaining in the lot.

Sublot Size, Lump Sum Items Each lot shall be divided into sublots of equal size, based on the estimated quantity of concrete.

TABLE 3

Quantity m^3 [cy]	Recommended Sublot Size m^3 [cy]
0-400 [0-500]	40 [50]
401-800 [501-1000]	60 [75]
801-1600 [1001-2000]	80 [100]
1601 [2001]or greater	200 [250]

Determination of the concrete cover over reinforcing steel for structural concrete shall be made prior to concrete being placed in the forms. Bar supports, chairs, slab bolsters, and side form spacers shall meet the requirements of Concrete Reinforcing Steel Institute (CRSI) Manual of Standard Practice, Chapter 3 Section 2.5 Class 1, Section 2.6 Class 1A, or Section 4. All supports shall meet the requirements for type and spacing as stated in the CRSI Manual of Standard Practice, Chapter 3. Concrete will not be placed until the placing of the reinforcing steel and supports have been approved by the Resident. If the Contractor fails to secure Department approval prior to placement, the Contractor's failure shall be cause for removal and replacement at the Contractor's expense. The Contractor shall notify the Resident, at least 48 hours prior to the placement, when the reinforcing steel will be ready for checking. Sufficient time must be allowed for the checking process and any needed repairs.

Evaluation of materials will be made using the specification limits in Table 1.

Compressive strength tests will be completed by the Department in accordance with AASHTO-T22 at ≥ 28 days, except that no slump will be taken. The average of two concrete cylinders per sublot will constitute a test result and this average will be used to determine the compressive strength for pay adjustment computations.

Testing for Entrained Air in concrete, at the rate of one test per sublot, shall be in accordance with AASHTO T152.

Rapid Chloride Permeability test specimens will be completed by the Resident in accordance with AASHTO T-277 at an age ≥ 56 days. Two 100 mm x 200 mm [4 in x 8 in] cylinders will be taken per sublot placed.

Surface Tolerance, Alignment and Trueness, Plumb and Batter, and Finish will be measured as described in Section 502.0502.

Rejection by Resident For an individual sublot with a calculated pay factor of less than 0.80, the Department will, at its sole discretion:

A. Require the Contractor to remove and replace the entire affected placement with concrete meeting the Contract requirements at no additional expense to the Department, or

B. Accept the material, at a reduced payment as determined by the Department. (See also Section 502.191)

For a lot in progress, the Contractor shall discontinue operations whenever one or more of the following occurs:

A. The pay factor for any property drops below 1.00 and the Contractor is taking no corrective action

B. The pay factor for any property is less than 0.90

C. The Contractor fails to follow the QC Plan

Paragraph E, under Subsection 502.18, Method of Measurement, of the 2002 Revision of the Standard Specifications is deleted and replaced by the following:

E. For the purposes of making pay adjustments under Method A, quantities of lots and sublots shall be determined as outlined under Section 502.0502 - Quality Assurance Method A, Section 502.0503- Quality Assurance Method B, and under Section 502.19 - Basis of Payment.

The first sentence in the seventh paragraph of Subsection 502.19, Basis of Payment, of the 2002 Revision of the Standard Specifications is deleted and replaced by the following:

Pay adjustments will be made only for cast-in-place concrete accepted under Method A and Method B.

Subsection 502.191, Pay Adjustment for Compressive Strength, of the 2002 Revision of the Standard Specifications is deleted and replaced by the following:

502.191 Pay Adjustment for Compressive Strength Compressive strength tests will be completed by the Department in accordance with AASHTO-T22 at 28 days.

Pay factors (PF) for pay adjustments for compressive strength will be determined using the Quality Level Analysis as specified in Section 106.

If three consecutive tests fail to meet the below listed strength requirements, the Contractor shall submit remedial actions acceptable to the Department, at no additional cost. These remedial actions shall be taken until the source of the problem can be identified and corrected or new trial batches can be performed. When the average of three consecutive tests falls to less than 1.0 MPa [150 psi] above the specified strength or any single test more than 1.4 MPa [200 psi] below the specified strength, the Resident will notify the Contractor to make corrective changes in the materials, mix proportions, or in the concrete manufacturing procedures before placing additional concrete of the same class. Such changes shall be subject to the approval of the Resident.

Subsection 502.192, Pay Adjustment for Chloride Permeability, of the 2002 Revision of the Standard Specifications is deleted and replaced by the following:

502.192 Pay Adjustment for Chloride Permeability Pay factors (PF) for pay adjustments for Chloride Permeability will be determined using the Quality Level Analysis as specified in Section 106.

Values greater than 4000 coulombs shall be subject to rejection and replacement at no additional cost to the Department.

Subsection 502.193, Pay Adjustment for Air Content, of the 2002 Revision of the Standard Specifications is deleted and replaced by the following:

502.193 Pay Adjustment for Air Content Pay factors (PF) for pay adjustments for air content will be determined using the Quality Level Analysis as specified in Section 106.

The following subsection is added to the 2002 Revision of the Standard Specifications:

502.195 Pay Adjustments for Compressive Strength, Chloride Permeability and Air Content The Composite Pay Factor (CPF) for each lot of concrete shall be computed as follows:

CPF = [(Compressive Strength PF-1)(0.20)] + [(Air Content PF-1)(0.40)]
+ [(Chloride Permeability PF-1)(0.40)]

The pay adjustment for each lot of concrete shall be computed as follows:

Lot Pay Adjustment = P x CPF x Lot Size

There will be no positive pay adjustments for Method B Concrete.